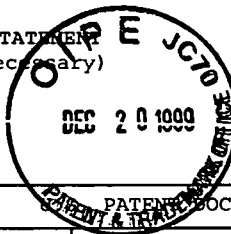


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Lester F. Ludwig, et al.**RECEIVED**FILING DATE  
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**DEC 21 1999**

PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	GROUP	FILING DATE
<i>NRK</i>	P1	3,723,653	3/27/73	Tatsuzawa				
	P2	3,873,771	3/25/75	Kleinerman, et al.				
	P3	3,974,337	8/10/76	Tatsuzawa				
	P4	4,005,265	1/25/77	Verhoeckx, et al.				
	P5	4,054,908	10/18/77	Poirier et al.				
	P6	4,210,927	7/1/80	Yumde, et al.				
	P7	4,441,180	4/3/84	Schussler, et al.				
	P8	4,451,705	05/29/84	Burke et al.				
	P9	4,516,156	5/7/85	Fabris, et al.				
	P10	4,529,839	7/16/85	Colton, et al.				
	P11	4,529,840	7/16/85	Colton, et al.				
	P12	4,531,024	7/23/85	Colton, et al.				
	P13	4,574,374	3/4/86	Scordo				
	P14	4,645,872	2/4/87	Pressman, et al.				
	P15	4,650,929	3/17/87	Boerger, et al.				
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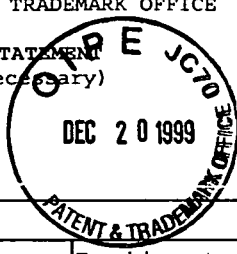
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NRK	P17	4,686,698	8/11/87	Tompkins et al.			
	P18	4,710,917	12/1/87	Tomkins, et al.			
	P19	4,716,585	12/29/87	Tompkins et al.			
	P20	4,817,018	03/28/89	Cree et al.			
	P21	4,837,798	6/6/89	Cohen, et al.			
	P22	4,847,829	07/11/89	Tompkins et al.			
	P23	4,922,523	5/1/90	Hashimoto			
	P24	4,931,872	06/05/90	Stoddard et al.			
	P25	4,953,159	8/28/90	Hayden et al.			
	P26	4,961,211	10/2/90	Tsugane, et al.			
	P27	4,965,819	10/23/90	Kannes			
	P28	4,977,520	12/11/90	McGauhey et al.			
	P29	4,987,492	1/22/91	Stults, et al.			
	P30	4,995,071	2/19/91	Weber, et al.			
	P31	5,003,532	3/26/91	Ashida, et al.			
	P32	5,010,399	4/23/91	Goodman, et al.			
	P33	5,014,267	5/7/91	Tompkins et al.			
	P34	5,027,400	6/25/91	Baji, et al.			

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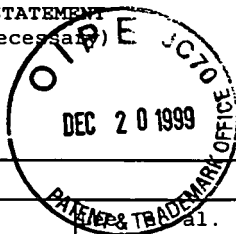
Mohr. Ramakrish

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May 05, 1998GROUP  
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Group 2700

NRK	P35	5,042,062	8/20/91	al.			
	P36	5,072,442	12/10/91	Todd			
	P37	5,099,510	3/24/92	Blinken, Jr., et al.			
	P38	5,130,399	07/14/92	Ikeno et al.			
	P39	5,130,793	7/14/92	Bordry, et al.			
	P40	5,130,801	7/14/92	Yamaguchi			
	P41	5,155,761	10/13/92	Hammond			
	P42	5,170,427	12/8/92	Guichard, et al.			
	P43	5,195,086	03/16/93	Baumgartner et al.			
	P44	5,200,989	4/6/93	Milone			
	P45	5,202,957	4/13/93	Serrao			
	P46	5,218,627	6/8/93	Corey, et al.			
	P47	5,224,094	06/29/93	Maher et al.			
	P48	5,239,466	08/24/93	Morgan et al.			
	P49	5,253,362	10/12/93	Nolan et al.			
	P50	5,260,941	11/09/93	Wilder et al.			
	P51	5,283,637	2/1/94	Goolcharan			
	P52	5,303,343	04/12/94	Ohya et al.			

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NRH	P53	5,315,633	5/24/94	Champa			
	P54	5,333,299	07/26/94	Koval et al.			
	P55	5,351,276	09/27/94	Doll Jr. et al.			
	P56	5,353,398	10/4/94	Kitahara et al.			
	P57	5,363,507	11/08/94	Nakayama et al.			
	P58	5,365,265	11/94	Shibata et al.			
	P59	5,373,549	12/13/94	Bales et al.			
	P60	5,374,952	12/20/94	Flohr			
	P61	5,379,374	01/03/95	Ishizaki et al.			
	P62	5,382,972	1/17/95	Kannes			
	P63	5,392,346	2/21/95	Hassler et al.			
	P64	5,404,435	04/04/95	Rosenbaum			
	P65	5,408,526	4/18/95	McFarland et al.			
	P66	5,408,662	04/18/95	Katsurabayashi			
	P67	5,432,525	07/11/95	Maruo et al.			
	P68	5,444,476	8/22/95	Conway			
	P69	5,471,318	11/28/95	Ahuja et al.			
V	P70	5,473,679	12/05/95	La Porta et al.			

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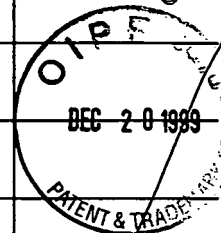
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NRK	P71	5,485,504	1/16/96	Ohnsorge			
	P72	5,491,695	02/13/96	Meagher et al.			
	P73	5,515,491	5/7/96	Bates et al.			
	P74	5,526,024	6/11/96	Gaglianella et al.			
	P75	5,550,966	08/27/96	Drake et al.			
	P76	5,553,222	09/03/96	Milne et al.			
	P77	5,561,736	10/1/96	Moore et al.			
	P78	5,581,702	12/03/96	McArdle			
	P79	5,590,128	12/31/96	Maloney et al.			
	P80	5,594,495	01/14/97	Palmer et al.			
	P81	5,602,580	2/11/97	Tseng			
	P82	5,608,653	03/04/97	Palmer et al.			
	P83	5,689,553	11/18/97	Ahuja et al.			

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	F2	0 190 060	06 Aug '86	EP				

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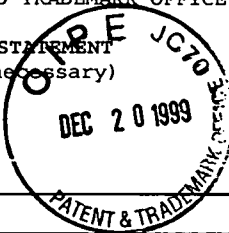
Meher. Ramakrishna

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NRH	F3	0 354 370	14 Feb '90	EP				
	F4	35 07 152	29 Aug '85	DE				
	F5	0 403 118	19 Dec '90	EP				
	F6	0 414 222	27 Feb '91	EP				
	F7	0 436 345	10 Jul '91	EP				
	F8	0 453 128	23 Oct '91	EP				
	F9	0 497 022	05 Aug '92	EP				
	F10	0 516 371	2 Dec '92	EP				
	F11	0 523 618	20 Jan '93	EP				
	F12	0 535 601	07 Apr '93	EP				
	F13	0 523 626	20 Jan '93	EP				
	F14	0 548 597	30 Jun '93	EP				
	F15	0 561 381	22 Sep '93	EP				
	F16	0 604 053	29 Jun '94	EP				
	F17	WO 94/24803	27 Oct '94	PCT				
	F18	WO 92/21211	26 Nov '92	PCT				
	F19							

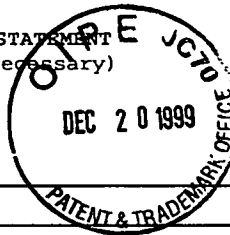
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NRH	D1	ACM Press, Conference on Organizational Computing Systems, SIGOIS Bulletin, Vol. 12, No. 2-3, Nov 5-8, 1991
	D2	The American Users Forum (Niu-Forum) Aug 6-9, 1990
	D3	Bellcore News, "IMAL Makes Media Merging Magic," 5(20), Nov 9, 1988
	D4	Frontiers in computer communications technology, Sigcom '87 Workshop (Aug 11-13, 1987)
	D5	Unix 4 <sup>th</sup> Berkeley Release 1991 man pages for 'login,' 'http,' 'talk,' and 'who.' Online Internet: <a href="http://www.de.freebds.org">http://www.de.freebds.org</a>
	D6	Statement by Attorney for Applicants-Describing Product Development
	D7	AHUJA et al., "Coordination and Control of Multimedia Conferencing," IEEE Communication Magazine, 30(5): 38-42, May 1992
	D8	AHUJA et al., "Networking Requirements of the Rapport Multimedia Conferencing System," INFOCOM '88, IEEE, pp. 746-751, 1988
	D9	BISWAS et al., "Distributed Scheduling of Meetings: A Case Study in Prototyping Distributed Application," System Integration, 1992 2 <sup>nd</sup> International Conference
	D10	COHEN et al., "Audio Windows: User Interfaces for Manipulating Virtual Acoustic Environments," pp. 479-480
	D11	COHEN et al., "Audio Windows for Binaural Telecommunication," EIC, Tokyo (10/91)
	D12	COHEN et al., "Design and Control of Shared Conferencing Environments for Audio Telecommunication," Proceedings of the Second Int'l Symposium on Measurement and Control Robotics (ISMCR '92), Tsukuba Science City, Japan, (November 15-19, 1992), pp. 405-412
	D13	COHEN et al., "Exocentric Control of Audio Imaging in Biaural Telecommunication," IEICE Trans. Fundamentals, Vol. E75-A, No. 2, (February 1992)
	D14	COHEN et al., "Multidimensional Audio Window Management," Int'l Journal of Man-Machine Studie, Vol. 34:319-336 (1991)
	D15	COHEN et al., "Multidimensional Audio Windows: Conferences, Concerts and Cocktails," Human Factors Society Meeting, SF, CA, pp. 1-15, June-12-91
	D16	CRAWFORD et al., "Videomatic Switching: System and Services, Digital Communications," Int. Zurich Seminar, 1988
✓	D17	ENSOR et al., "The Rapport Multimedia Conferencing System - Software Overview," Computer Workstation Conference, IEEE, pp. 52-58, 1988

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NRK	D18	GOPAL et al., "Directories of Networks with Causally Connected Users," IEEE, pp. 1060-1064, 1988
	D19	HORN et al., "An ISDN Multimedia Conference Bridge," TENCON '90 - 1990 IEEE Region 10 Conference on Computer and Communication, pp. 853-856, 1990
	D20	KAMEL, "An Integrated Approach to Share Synchronous Groupware Workspaces," IEEE 1993
	D21	KENDALL et al., "Simulating the Cue of Spatial Hearing in Natural Environments," Northwestern University, Evanston, IL 60201
	D22	KLEIN, Telekommunikation von Angesicht zu Angesicht 2323 Telcom Report 9 (1986) Sept./Okt., No. 5, Erlangen, W. Germany
	D23	KOBAYASHI et al., "Development and Trial Operation of Video Teleconference System," IEEE Globecom, pp. 2060-2063, 1990
	D24	LAKE et al., "A network environment for studying multimedia network architecture and control," (1989 Globecom)
	D25	LANTZ, An Experiment in Integrated Multimedia Conferencing, Department of Computer Science, Stanford University, Stanford, CA 94305, Dec 1986
	D26	LANTZ et al., Collaboration Technology Research at Olivetti Research California, August 1989
	D27	LAUWERS et al., Replicated Architectures for Shared Window Systems: A Critique, (Olivetti Research California) Version of April 1990
	D28	LAUWERS et al., Collaboration Awareness in Support of Collaboration Transparency: Requirements for the Next Generation of Shared Windows Systems, (Olivetti Research California) Version of April 1989
	D29	LEUNG et al., Optimum Connection Paths for a Class of Videoconferences, Department of Information Engineering, the Chinese University of Hong Kong, Shatin, Hong Kong
	D30	MAENO et al., Distributed Desktop Conferencing System (MERMAID) Based on Group Communication Architecture, The Transactions of the Institute of Electronics, Information and Comm. Engineers E74 (1991) Sept., No. 9, Tokyo, JP
	D31	MARTENS, "Principal Components Analysis and Resynthesis of Spectral Cues to Perceived Direction," Proceedings of the 1987 Int'l Computer Music Conference, Northwestern University, Evanston, IL 60201
	D32	MASAKI et al., "A Desktop Teleconferencing Terminal Based on B-ISDN: PMTC," NTT Review, 4(4):81-85, 1992
X	D33	NG et al., Systems Integration '90, (April 23-26, 1990)
	D34	NUNOKAWA et al., "Teleconferencing Using Stereo Voice and Electronic OHP," IEEE, 1988
	D35	OHMORI et al., "Distributed Cooperative Control for Sharing Applications Based on Multiparty and Multimedia Desktop Conferencing System," IEEE, 1992
✓	D36	PATE, "Trends in Multimedia Applications and the Network Models to Support Them," Globecom's 90: 1990

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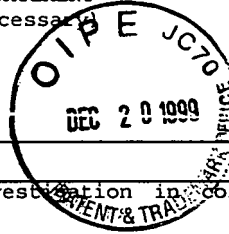
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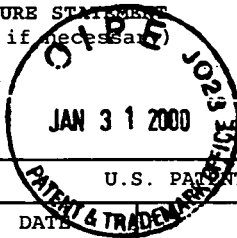
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Lester F. Ludwig, et al.FILING DATE  
May 05, 1996GROUP  
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Group 2702



12h	D37	PERKINS, "Spider: An investigation in collaborative technologies and their effects on network performance"
	D38	RAMANATHAN et al., Optimal Communication Architectures for Multimedia Conferencing in Distributed Systems, Multimedia Laboratory Dept. of Computer Science and Engineering, University of San Diego, La Jolla, CA
	D39	RANGAN et al., "Software architecture for integration of video services in the etherphone system," IEEE J. on Selected Areas in Comm., 9(9):1395-1404, Dec '91
	D40	RANGAN et al., "A Window-Based Editor for Digital Video and Audio," System Sciences, 1992 Hawaii Int'l Conference (1992)
	D41	SAKATA, "B-ISDN Multimedia Workstation Architecture," IEEE, 1993
	D42	SAKATA et al., "Development and Evaluation of an In-House Multimedia Desktop Conference System," NEC Research & Development, no. 98, pp. 107-117, July 1990
	D43	STEFIK et al., "Beyond the Chalkboard: Computer Support for Collaboration and Problem Solving," Communications of the ACM, Vol. 30, No. 1, Jan 1987
	D44	VIN et al., Hierarchical Conferencing Architectures for Inter-Group Multimedia Collaboration, Multimedia Laboratory Department of Computer Science and Engineering University of California at San Diego, La Jolla
	D45	VIN et al., Multimedia Conferencing in the Etherphone Environment, Computer Magazine, Vol. 24, Issue 10, pp. 69-79, 1991
	D46	WATABE et al., "A Distributed Multiparty Desktop Conferencing System and Its Architecture," IEEE, 1991
	D47	WATABE et al., "Distributed Desktop Conferencing System with Multiuser Multimedia Interface," IEEE, 1991
	D48	WEISS, Desk Top Video Conferencing - An Important Feature of Future Visual, SIEMENS AG - Munich - West Germany
	D49	ZELLWEGER et al., "An Overview of the Etherphone System and Its Applications," Computer Workstations Conference, 1988
	D50	
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## U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE
MR	P1	4,475,193	10/02/84	Brown			
MR	P2	4,796,293	01/03/89	Blinken et al.			
MR	P3	4,888,795	12/19/89	Ando et al.			
MR	P4	4,998,243	03/05/91	Kao			
MR	P5	5,056,136	10/08/91	Smith			
MR	P6	5,073,926	12/17/91	Suzuki et al.			
MR	P7	5,157,491	10/20/92	Kassatly			
MR	P8	5,195,087	03/16/93	Bennett et al.			
MR	P9	5,231,492	07/27/93	Dangi et al.			
MR	P10	5,319,795	07/07/94	Hamabe et al.			
MR	P11	5,333,133	07/26/94	Andrews et al.			
MR	P12	5,335,321	08/02/94	Harney et al.			
MR	P13	5,345,258	09/06/94	Matsubara et al.			
MR	P14	5,367,629	11/22/94	Chu et al.			
MR	P15	5,375,068	12/20/94	Palmer et al.			
MR	P16	5,384,598	01/24/95	Rodriguez et al.			

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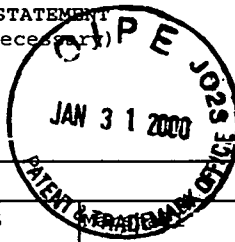
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OTHER PUBLICATIONS (including Author, Title, Date, Pertinent Pages, Etc.)

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